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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/666,901

09/18/2003

Mark H. Nicholls

12724.0 (Nicholls et al.)

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EXAMINER

MILLER, DANIEL H

ART UNIT

PAPER NUMBER

1775

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/31/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/666,901

Applicant(s)

NICHOLLS ET AL.

Examiner

Daniel Miller

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/8/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4,5 and 7-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5 and 7-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-5 and 7, 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buck et al (U.S. 6818274 B1) and further in view of Prevost (U.S. 6048282).

Buck teaches artificial turf comprising a primary backing having a first side and a second side and comprising a first backing layer, a second backing layer, a third backing layer, and a fourth backing layer; a plurality of fibers sewn through said primary backing; and a secondary backing on said second side of said primary backing, wherein said first layer facilitates tufting, (see figure 1-8 see column 4 line 35-45) said second layer inherently facilitates dimensional stability, said third layer inherently facilitates tuft bind and said fourth layer inherently by its presence facilitates seam strength (figure 1). The artificial turf's fibers forming upstanding ribbons on said first side of said primary backing and further comprising an infill layer disposed between said ribbons providing additional weight and support (column 5 line 1-4). The artificial turf fibers form a plurality

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of rows and columns of ribbons, the distance between each said rows being substantially the same as the distance between each of said columns.

However, Buck is silent as to the spacing between the fibers.

Prevost teaches a synthetic turf line system for a playing field wherein parallel rows of ribbons with granular infill are used to simulate real grass (claim 1 reference). There is only one dimension given for the rows distance (claim 14 reference) of 5/16 to 2 and ¼ inches and the figure 1 shows a spacing along a girded (woven) backing of equally spaced fiber rows (in both directions). The above-described parallel rows would make it obvious to one of ordinary skill in the art to use equal spacing between the columns and rows since it is known to be advantageous to use wider than 5/16 parallel spacing of rows in order to make easier installation of granular material (13) (column 5 line 30-45).

Regarding claim 9, Buck teaches the artificial turf having said first or third layer comprises a polypropylene weave (See figure 1 and column 10 lines 20-25 background in line 10-50 and the interchangeability of layers is disclosed in column 10 line 52-60)).

Regarding claim 5, Buck teaches the secondary backing is a liquid applied urethane backing (column 4 line 52-57).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buck in view of Prevost and further in view of Layman (U.S. 4,152,473).

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Buck and Prevost, discussed above, are silent as to seam tape covering a seam between panels.

Layman teaches it is known in the art to use polypropylene tape (seam tape) to adhere seams or abutting edges of panels together in synthetic turf on the second side of primary backing. This technique increases dimensional stability (column 4 line 40-65). It also shows it is well known in the art to use turf as a modular system.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the tape used in Layman with the layers of Buck to increase dimensional stability.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buck in view of Prevost as applied to claim 1 above, and further in view of Cheng et al (U.S. 5,939,166).

Buck, discussed above, further teaches a second or third layer that incorporates a polyester/nylon blend (column 10 line 20-40), but is silent as to a backing having a second layer with a polyester core and a nylon sheath.

Cheng teaches a polyester core with a nylon sheath used as a backing (Column 3 and 4 line 60-67, and 1-4). This is used because they are moisture stable strands (Column 3 line 40-45). Cheng also contemplating a multilayered backing (column 10 line 40 to 55).

Therefore, it is known in the art to use such backings and it would be obvious to a person of ordinary skill in the art at the time of the invention to use a composite

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layering of Buck and incorporate the polyester core and the nylon covering because they are moisture stable strands which would be better for outdoor applications.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buck in view of Prevost further in view of Fink (U.S. 6,051,300).

Buck in view of Prevost teach all the elements of claim 1 but is silent as to the backing being tape warp and yarn fill.

Fink teaches a polypropylene tape warp and yarn fill a known in the carpeting industry. The spun fibers are more desirable to increase adhesion of the layers (Column 1 line 40-60).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Buck with the backing of Fink to increase adhesion.

### ***Response to Arguments***

1. Applicant's arguments filed 12/8/2006 have been fully considered but they are not persuasive. Applicant has acknowledged that the columns of fibers can be anywhere from 1/8 inches to 1/2 inches. Applicant further acknowledges that the rows of fibers running perpendicular to the columns can be anywhere from 5/16 to 2 1/4 inches. Therefore, both the rows and columns have an overlapping range from 5/16 to 1/2 inches wherein both could be substantially the same as claimed by applicant.

2. Further, as also acknowledged by applicant, "four tufts per inch are preferred" (column 6 line 51-62 Prevost) or 1/4 inches, which equals 4/16 inches spacing between

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the columns. This is considered to be substantially the same to the lower limit of the rows of 5/16 inches.

3. Additionally, as stated and cited above, the infill material (ballasts) installation can be impeded at values below 5/16 inches separation of the rows. One could expect similar advantages to distances from 5/16 to 1/2 inches distance in the columns therefore making these overlapping values more likely to be chosen. Not that that is necessary for a finding of obviousness.

Although the claims differ in that Prevost does not teach the exact same proportions as recited in the instant claims.

One of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the compositional proportions taught by Prevost overlap the instantly claimed proportions and therefore are considered to establish a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art reference, particularly in view of the fact that;

“The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages”, In re Peterson 65 USPQ2d 1379 (CAFC 2003).

Also, In re Geisler 43 USPQ2d 1365 (Fed. Cir. 1997); In re Woodruff, 16 USPQ2d 1934 (CCPA 1976); In re Malagari, 182 USPQ 549, 553 (CCPA 1974) and MPEP 2144.05.

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It is further noted that the applicant has not given reasoning or evidence for how substantially the same spacing of columns and rows has advantages over other values. It has been known in the art to create uniform playing characteristics with good quality playing surfaces (column 5 line 45-65 Prevost). It would further be obvious to optimize these properties within the disclosed ranges of Prevost. Rejection maintained.

#### **Conclusion**

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any




extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Miller whose telephone number is (571)272-1534. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571)272-1540. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Daniel Miller

  
JENNIFER MCNEIL  
SUPERVISORY PATENT EXAMINER  
1/27/07